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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,334	11/30/2001	Masahiro Sato	NGB-106-A	4987

7590 11/18/2003

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EXAMINER

CULBRETH, ERIC D

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,334

Applicant(s)

SATO ET AL.

Examiner

Eric D Culbreth.

Art Unit

3616

The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 9/12/03. These drawings are acceptable.

Specification

2. The substitute specification filed 9/12/03 has been approved by the examiner.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-3, 7, and 16-20 as best understood are rejected under 35 U.S.C. 102(e) as being anticipated by Shiota et al (of record).

Shiota et al discloses an air bag folded and housed in an instrument panel (column 1, lines 15-25) and inflated by an inflator 16 when the vehicle collides (column 1, lines 15-25). As seen in Figure 2, gas from the generator flows into an opening portion of the air bag (at the left side of the bag in Figure 2). A gas flow path extends continuously from the opening portion above and below cavity 20, and the gas flow path extends continuously to an occupant restraint portion at the right side of Figure 2. Therefore, gas flows continuously from the opening portion to the occupant restraint portion through the gas flow path portion. Cloth 108 is a penetrating portion extending through the gas flow portion (claim 1).

Art Unit: 3616

Regarding claim 2, the penetrating portion 108 divides the gas flow path portion into two flow paths at least.

Regarding claim 7, as functionally recited, penetrating portion 108 reduces an opening area of the gas flow path portion.

In regard to claims 16-17, Shiota et al teaches the penetrating portion being sealed (note Shiota et al, column 3, lines 1-4, where the ends of cloth 108 are both seamed to openings 106, 107 in side panels 104, 105, and also note column 4, lines 15-21, where Shiota et al teaches that vent holes 24, 24a may be disposed some other place than facing cavities 20, 20a and hence some other place than on penetrating portion 108, leaving the penetrating portion sealed).

Regarding claim 3, Shiota et al's cloth 108 is also a "joint portion" as broadly recited in that it is a portion joined by sewing to the side walls 104, 105 of the air bag 10. As functionally recited in claim 18, the penetrating portion extends through the gas flow path portion and restricts the volume of air that flow therethrough. As discussed previously (claims 19-20), the joint portion 108 would reduce the volume of the air bag and connects opposing sections of the gas flow portion inasmuch as applicant's disclosed invention (i.e., it connects those portions of the side walls 104, 105 forming the gas flow portion by sewing).

Regarding the new limitations added to claims 1, 3, and 17 that the penetrating portion/joint portion only in the gas flow path portion attached to or extending continuously from the opening portion, Shiota et al meets the limitation as functionally recited. Note Figure 2, where the arrows indicating gas flow go from the bag opening to the other side of cloth 108, indicating that a gas flow portion exists from the opening to the other side of the cloth 108, and hence that the cloth 108 is only in the gas flow portion). Although applicant's remarks state that

Art Unit: 3616

Shiota et al's disclosure at column 4, lines 15-21 only means that the vent hole may be somewhere else along cavity 20, 20a, the total disclosure of column 4, lines 15-21 would not seem to limit the disclosure to only the cavity 20, 20a (i.e., the vent hole may be at another place than shown in the drawings, so long as gases from the vent holes do not make direct contact with an occupant).

2. Claims 3, 5 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama (of record).

Maruyama discloses an air bag in a folded state housed in an instrument panel inflated by inflator 16 when the vehicle collides (column 1, lines 15-25), the air bag having an opening portion attached to container 12 receiving gas from inflator 16, a gas flow path portion 22, 24 extending continuously from the opening portion, and an occupant restraint portion at 23. The occupant restraint portion 23 extends continuously from the gas flow portion, wherein the gas flow from the opening portion to the occupant restraint portion through the gas flow path portion. At least one joint portion 25 is located within the air bag, the joint portion dividing the gas flow path portion into two or more paths 22, 24 for flowing the gas from the opening portion to the occupant restraint portion through the gas flow portion (claim 3). The joint portion is formed by sewing parts 20a, 10 of the air bag portions forming the gas flow portions together (note the first two lines of the abstract, where the air bag is formed of a panel and guide member (20)) (claim 5).

Maruyama's bag has a plurality of joint portions (i.e., one on either side of pieces 20a and 20b), the joint portion(s) reduce an area of the gas flow path portion (by holding pieces 20a, 20b

Art Unit: 3616

in place), and the joint portions in holding pieces 20a, 20b in place divide the gas flow path portion into multiple flow paths 22, 24 (claims 12-15).

Regarding claim 3, as with Shiota et al above, in view of the broad recitation that the joint portion is located only in the gas flow path portion, as indicated in Figure 2 of Maruyama, the joint portions along panel 20 are only in a gas flow path portion continuous from the bag opening as indicated by the arrows from the bag opening to the other side of the panel 20.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shiota et al to include a plurality of penetrating portions such as cylindrical cloth 108 in order to reduce the volume necessary to fill the air bag (column 4, lines 23-33) using an obvious design variant (case law (St. Regis Paper Co. v. Bemis Co. Inc., 193 USPQ 8, 11 (7th Cir. 1977) holds that it is obvious to duplicate parts (i.e., use more than one cylindrical cloth) for multiplied effect (to require even less gas to inflate the bag)). The penetrating portions in the obvious design variant would reduce an opening area of the gas flow path portion as functionally recited.

Art Unit: 3616

Regarding applicant's arguments that the cited case law is not applicable, St. Regis would certainly appear to teach that it is not an invention to duplicate parts for multiplied effect, which is why applicant uses multiple portions at page 15, line 21 – page 16, line 1 of the original specification (i.e., multiple portions are used to further reduce the actual volume of the bag to be inflated).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Culbreth whose telephone number is 703/308-0360. The examiner can normally be reached on Monday-Thursday, 9:30-7:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are 703/746-3508 for regular communications and 703/308-2571 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Eric D Culbreth
Primary Examiner
Art Unit 3616

Eric Culbreth
11/15/03

ec
November 15, 2003